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Application Number	09/721,790
Filing Date	November 22, 2000
First Named Inventor	Charles R. Simmers
Art Unit	2673
Examiner Name	David Lee Lewis
Attorney Docket Number	042390.P3581R

Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- [x] Fee Transmittal Form
- [x] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
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- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
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- [ ] After Allowance communication to Technology Center (TC)
- [ ] Appeal Communication to Board of Appeals and Interferences
- [x] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
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  -Brief in Support of Appeal (19 pages) (and two copies)
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Kenneth M. Seddon, Reg. No. 43,105 Intel Corporation
Signature	Ken Seddon
Date	August 25, 2003

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Signature	Lisa M. Hopkinson	Date	August 25, 2003

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FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 320.00

Complete if Known	
Application Number	09/721,790
Filing Date	November 22, 2000
First Named Inventor	Charles R. Simmers
Examiner Name	David Lee Lewis
Art Unit	2673
Attorney Docket No.	042390.P3587R

METHOD OF PAYMENT *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☑ Deposit Account:

Deposit Account Number: 52-0221

Deposit Account Name: Intel Corporation

The Director is authorized to: *(check all that apply)*

☑ Charge fee(s) indicated below ☑ Credit any overpayments

☑ Charge any additional fee(s) during the pendency of this application

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FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) ($)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims		Fee from below	Fee Paid
Total Claims		-20** =		X	=
Independent Claims		- 3** =		X	=
Multiple Dependent					=

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for *ex parte* reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	320.00
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) ($) 320.00

SUBMITTED BY				(Complete *(if applicable)*)	
Name (Print/Type)	Kenneth M. Seddon	*Registration No. (Attorney/Agent)*	43,105	*Telephone*	480-554-9732
Signature				*Date*	August 25, 2003

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Patent Application of:

Charles R. Simmers

Serial No.: 09/721,790

Filed: November 22, 2000

For: APPLICATION OF SPLIT AND DUAL SCREEN LCD PANEL DESIGN IN CELLULAR PHONES

Date: August 25, 2003

Art Unit: 2673

Examiner: D. Lewis

HONORABLE COMMISSIONER FOR PATENTS, PO Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF

IN SUPPORT OF APPELLANT'S APPEAL

TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

Applicant (hereafter "Appellant") hereby submits this Brief in triplicate in support of his Appeal from a final decision by the Examiner in the above-captioned case. Appellant respectfully requests consideration of this Appeal by the Board of Patent Appeals and Interferences for allowance of the claims in the above-captioned patent application.

An oral hearing is not desired.

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO:
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE, WASHINGTON, D.C. 20231, ON: 25 August 2003
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08/28/2003 SSITHIB1 00000088 500221 09721790

01 FC:1402 320.00 DA

INTEL CORPORATION
Name of Assignee

Lisa M. Hopkinson 8-25-2003
SIGNATURE DATE

TABLE OF CONTENTS

I. REAL PARTY IN INTEREST

The invention is assigned to Intel Corporation of 2200 Mission College Boulevard, Santa Clara, California 95052.

II. RELATED APPEALS AND INTERFERENCES

To the best of Appellant's knowledge, there are no appeals or interferences related to the present appeal that will directly affect, be directly affected by, or have a bearing on the Board's decision.

III. STATUS OF THE CLAIMS

Claims 1-32 are currently pending in the above-referenced patent application. Claims 1-32 were rejected in the Final Office Action mailed on December 18, 2002 and are the subject of this appeal. The Examiner confirmed his final rejection in an Advisory Action mailed on June 4, 2003.

Claims 1, 5, 7-9, 12-22 and 24-32 stand rejected under 35 U.S.C. § 102(e) on U.S. patent 5,881,299 by Nomura et al.

Claims 2-4. 6, 10, 11 and 23 stand rejected under 35 U.S.C. § 103(a) on U.S. patent 5,881,299 by Nomura et al. in view of Britz (US patent 5,414,444) and Imai et al. (Des 377,341).

IV. STATUS OF AMENDMENTS

To the best of Appellant's knowledge, no amendments have been filed subsequent to the Final Rejection.

A copy of all claims on appeal, namely claims 1-32 is attached hereto as Appendix A.

V. SUMMARY OF THE INVENTION

Although the scope of the present invention is not limited in this respect, a portable computing device may provide multiple functions such as that of a cellular phone and that of a personal digital assistant (PDA). In some of these dual-function information devices, the information associated with these features may be displayed using the same display. The displays may be controlled by a single video controller that provides a plurality of control signals to drive pixels onto the displays. In particular embodiments, a power control block may be coupled to those drivers to selectively power-down drivers for the larger of the two displays, while keeping powered-up the smaller of the displays.

Alternatively, in dual-function information devices where there is only one physical display for the information device, a similar power control block may be programmed to selectively power-down certain pixel drivers for the display and thereby create a logical "sub-panel". Thus, a single display screen may be split into two or more logical sub-panels, each of which has corresponding drivers which output pixels to their portion of the display, and are independently powered-up or down as the application requires. (see column 1, line 47, to column 2, line 4)

Simply stated, Appellant's claimed invention includes, as just one embodiment:

1. In an information device having a CPU (e.g. CPU 520 of FIG. 6), display controller (e.g. controller 630) and a display panel (e.g. panel 200 of FIG. 2), said display panel split logically into sub-panels (e.g. panels 202 and 204), an apparatus comprising:

a plurality of segment drivers (e.g. segment drivers 120a-126a of FIG. 2) coupled between said display panel and said display controller, said segment drivers receiving input data from said controller, said segment drivers translating said data into pixels displayable on said display panel; and

a power control block (e.g. control block 560 of FIG. 6) coupled to said CPU and to said segment drivers to disable a first power source which powers down a first set of said segment drivers, said powering down disabling a first set of sub-panels of said display panel from outputting pixels, said power control block disabling said first power source upon receiving a command from said CPU that said first set of sub-panels are to be powered down, said information device functioning as one of a cellular communications

device and a personal digital assistant, said first set of sub-panels displaying information relevant to said personal digital assistant function, further wherein said display panel includes a second set of sub-panels displaying information relevant to said cellular communications functions.

VI. ISSUES PRESENTED

A. Whether claims 1, 5, 7-9, 12-22 and 24-32 are unpatentable under 35 U.S.C. § 102(e) on U.S. patent 5,881,299 by Nomura et al.

B. Whether claims 2-4, 6, 10, 11 and 23 are unpatentable under 35 U.S.C. § 103(a) on U.S. patent 5,881,299 by Nomura et al. in view of Britz (US patent 5,414,444) and Imai et al. (Des 377,341).

VII. GROUPING OF CLAIMS

For the purposes of this appeal:

Claims 1, 5, 7-9, 12-22 and 24-32 stand or fall together as Group I; and

Claims 2-4, 6, 10, 11 and 23 stand or fall together as Group II.

Reasons for separate patentability of the above indicated Claim Groups I-II are presented in the argument section pursuant to 37 C.F.R. §1.192(c)(7).

VIII. ARGUMENT

A. REJECTION OF CLAIMS 1, 5, 7-9, 12-22 AND 24-32 (GROUP I) UNDER 35 U.S.C. § 102(e) ON NOMURA ET AL. IS IMPROPER. THE EXAMINER HAS FAILED TO ESTABLISH A PRIMA FACIE SHOWING BECAUSE NOMURA ET AL. DOES NOT TEACH BOTH A PERSONAL DIGITAL ASSISTANT AND A CELLULAR COMMUNICATOR .

As is well-established, in order to successfully assert a *prima facie* case of anticipation, the Examiner must provide a single prior art document that includes every element and limitation of the claim or claims being rejected. Therefore, if even one element or limitation is missing from the cited document, the Examiner has not succeeded in making a prima facie case.

Claim Group I

Claim 1 states:

In an information device having a CPU, display controller and a display panel, said display panel split logically into sub-panels, an apparatus comprising:

a plurality of segment drivers coupled between said display panel and said display controller, said segment drivers receiving input data from said controller, said segment drivers translating said data into pixels displayable on said display panel; and

a power control block coupled to said CPU and to said segment drivers to disable a first power source which powers down a first set of said segment drivers, said powering down disabling a first set of sub-panels of said display panel from outputting pixels, said power control block disabling said first power source upon receiving a command from said CPU that said first set of sub-panels are to be powered down, said information device functioning as one of a cellular communications device and a personal digital assistant, said first set of sub-panels displaying information relevant to said personal digital assistant function, further wherein said display panel includes a second set of sub-panels displaying information relevant to said cellular communications functions.

Nomura et al. does not contain any express teaching or suggestion of "Personal Digital Assistant" as recited in claim 1.

Appellant has searched the entire text of the relied upon document and respectfully submits that Nomura et al. does not contain any recital of "Personal digital assistant." "digital assistant," or even "assistant." Instead, Appellant would kindly point out that Nomura only contains one occurrence or the word "personal" at column 3, line 36. However, and more significantly, Nomura et al. uses the term "personal" in describing the device of figure 1 as a **Personal handy phone system.** (emphasis added). Thus, Appellant would like to respectfully point out that Nomura et al. does not contain any express teaching of a "personal digital assistant." Rather, Nomura et al. refers to the device of figure 1 as a personal or wireless phone.

Again, Appellant would like to kindly point out that Appellant's claim 1 recites both a cellular communications device and a personal digital assistant. Accordingly, Appellant respectfully submits that Normura et al. cannot anticipate Appellant's claim 1 as it does not contain any teaching or suggestion of at least one feature of claim 1.

Nomura et al. cannot inherently teach or suggest a "Personal Digital Assistant" and "a cellular communications device"

The Court of Appeals for the Federal Circuit has made clear the requirements are for an Examiner to establish that a feature recited in a claim is **inherent** in a relied upon document. The Court of Appeals for the Federal Circuit has stated repeatedly, that Inherency "may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *948 F.2d at 1269, 20 USPQ2d at 1749* (quoting I *n re Oelrich, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981))."* The Final Office Action must establish that a feature must necessarily result and be recognized by one skilled in the art. Appellant respectfully submits the Examiner did not meet the requirement.

Normura et al. refers to the device shown in figure 1 only as a personal handy phone system. Further, as explained above, Normura et al. does not contain any teaching or suggestion of a personal digital assistant. In addition, figure 4 of Nomura et al. does not include any mention of a personal digital assistant. Rather, figure 4 of Nomura et al.

shows a signal strength indicator (area 1) and a phone book (area 2) associated with a cell phone. This is clearly explained in the text of Nomura et al. at column 5 lines 49-64. Thus there is no basis to even suggest that Nomura et al. teaches a personal digital assistant.

However, in the Final Office action the Examiner stated "Further, Nomura et al. teaches of a personal digital assistant as well known and evidenced by figure 4." Clearly, this statement is improper as the Examiner may not establish a prima facie showing by referring to a figure and stating something is well known.

Nomura et al. cannot inherently teach a "personal digital assistant"as this contrary to the express teaching of Normura et al.

The CAFC has also established that a feature may not be inherent if the feature is not consistent with the express teachings of the relied upon document as shown, foror example, as the Court of Appeals for the Federal Circuit recently reversed an Examiner's rejection that was based in part on inherency. See, In re Frank S. Glaug, 2002 U.S. App Lexis 4246 (Fed Cir. 2002).

In the present case, Appellant would like to point out that Nomura et al. clearly teaches that both portions of a display are used to display information related to a cellular phone. For example, Nomura et al. states at column 5, line 35, that the residual amount of batter power of the personal handy **phone** system (PHS) is displayed in area 1. (emphasis added) In addition, Nomura et al. states at column 5, line 63-64, that display area 2 is used to display information such as a telephone book to be used for initiating a phone call with the PHS. Thus, Nomura et al. expressly teaches that both display areas are information from the one and only function described – a personal phone.

Accordingly, Appellant respectfully points out that Normura et al. cannot inherently teach or suggest at least one feature of Appellant's claim 1 because such a feature is inconsistent with the express teachings of Normura et al.

Nomura et al. does not contain any teaching or suggestion of a multi-functional device

Appellant also respectfully submits that Nomura et al. cannot anticipate Appellant's invention as Normura et al. does not contain any teaching or suggestion of a "multi-

functional" device that includes at least a personal digital assistant and a cellular communication device. Nomura et al. repeatedly, and consistently, refers to the device of figure 1 as a personal handy phone system. Nowhere does Nomura et al. suggest that the device does more than that.

Appellant respectfully submits that Nomura et al. clearly teaches that both portions of a display are used to display information related to a cellular phone. Moreover, Nomura et al. does not teach or suggest that any portion of the display is used to display information for a personal digital assistant. **For example, Nomura et al. states at column 5, line 35, that the residual amount of batter power of the personal handy phone system (PHS) is displayed in area 1. In addition, Nomura et al. states at column 5, line 63-64, that display area 2 is used to display information such as a telephone book to be used for initiating a phone call with the PHS.** Most importantly, the relied upon portions of Nomura et al. do not contain any teaching or suggestion that area 1 or area 2 are used to display information of a personal digital assistant.

Accordingly, Nomura et al. cannot anticipate Appellant's claim 1 since Normura et al. does not teach a "multi-functional" device. Therefore, at a minimum, Normura et al. cannot teach or suggest a device that has both a personal digital assistant AND a cellular communications device. Therefore, Normura et al. cannot anticipate at least one feature of Appellant's claim 1. Since claims 2-4 depend from independent claim 1, they are not anticipated for at least the same reason.

Similarly, independent claims 5, 7, 12, and 19 recite, among other things, that a portion of a display is used to display information associated with a personal digital assistant or a computing module. Further claim 28 recites, among other things, displaying information related to a wireless communication module on one portion of a display and displaying information on a second portion of the display related to a computing platform. These features are neither taught nor suggested by Nomura et al., and thus, Nomura et al cannot anticipate these claims or the claims that depend from them for at least this reason.

B. REJECTION OF CLAIMS 2-4, 6, 10, 11 AND 23 (GROUP II) UNDER 35 U.S.C. § 103(a) AS BEING UNPATENTABLE OVER NOMURA ET AL. IN VIEW OF BRITZ (US 5,414,444) AND IMAI ET AL. (Des 377341) IS IMPROPER. NONE OF THE RELIED UPON DOCUMENTS TEACH BOTH A PERSONAL DIGITAL ASSISTANT AND A CELLULAR COMMUNICATOR.

It is well established that obviousness requires a teaching or a suggestion by the relied upon prior art of all the elements of a claim (M.P.E.P. §2142). Without conceding the appropriateness of the combination, Appellant respectfully submits that the proposed combination does not meet the requirements of an obvious rejection in that none of the documents teach or suggest a personal digital assistant function.

Appellant would like to point out that claims 1 and 10 both recite, among other things, that one portion of a display displays information for a cellular communication device and another portion displays information of a personal digital assistant function. Similarly, claim 19 recites a wireless communication device and a personal digital assistant.

As discussed above, Nomura et al. does not and cannot teach or suggest these features. Further, Appellant respectfully submits that Britz discloses a personal communicator (see column 2, lines 9-10) and Imai et al. illustrates a portable communication terminal. Moreover neither teaches nor suggests that one portion of a display displays information for a cellular communication device and another portion display information of a personal digital assistant function.

Since each document, taken separately, is devoid of any teaching or suggestion of the limitations recited in claims 1, 10, and 19, the combination must necessarily be devoid of the required teaching or suggestion of all the elements recited. Consequently, the combination cannot make Appellant's claims 1, 10, or 19 obvious. Since the remaining claims depend from claims that recite limitations that cannot be obvious in view of the combination, these claims are allowable over the cited patents for at least the same reason.

Appellant would like to emphasize that the preceding paragraphs were not intended to attack the documents separately. But instead, Appellant has shown how each is

devoid of claimed elements so that, by default, the combination is also devoid of at least some of the features of Appellant's claimed invention.

IX. CONCLUSION

Appellant respectfully submits that all the pending claims in this patent application are patentable and request that the Board of Patent Appeals and Interferences overrule the Examiner and direct allowance of the rejected claims.

This brief is submitted in triplicate, along with a check for $320.00 to cover the appeal fee for one other than a small entity as specified in 37 C.F.R. § 1.17(c). Please charge any shortages and credit any overcharges to Deposit Account No. 02-2666.

Respectfully submitted,

Date: 8-25-03

Kenneth M. Seddon
Attorney for Appellants
Registration Number: 43,105

Blakely, Sokoloff, Taylor & Zafman
12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026
(408) 720-8598

X. APPENDIX A: CLAIMS ON APPEAL

1. In an information device having a CPU, display controller and a display panel, said display panel split logically into sub-panels, an apparatus comprising:

a plurality of segment drivers coupled between said display panel and said display controller, said segment drivers receiving input data from said controller, said segment drivers translating said data into pixels displayable on said display panel; and

a power control block coupled to said CPU and to said segment drivers to disable a first power source which powers down a first set of said segment drivers, said powering down disabling a first set of sub-panels of said display panel from outputting pixels, said power control block disabling said first power source upon receiving a command from said CPU that said first set of sub-panels are to be powered down, said information device functioning as one of a cellular communications device and a personal digital assistant, said first set of sub-panels displaying information relevant to said personal digital assistant function, further wherein said display panel includes a second set of sub-panels displaying information relevant to said cellular communications functions.

2. An apparatus according to claim 1 wherein said power control block disables a second power source which powers down a second set of said segment drivers, said powering down disabling a second set of sub-panels from outputting pixels, said power control block disabling said second power source upon receiving a command from said CPU that said second set of sub-panels are to be powered down.

3. An apparatus according to claim 2 wherein said first power source and said second power source are independently switched by said power-control block to enable outputting of pixels on said first set of sub-panels and said second set of sub-panels, respectively.

4. An apparatus according to claim 1 wherein said information device has a normally open latch, said power control block to disable said first power source when said

latch is closed.

5. In an information device having a CPU, display controller, and two display panels, an apparatus comprising:

a first set of segment drivers coupled to said display controller to receive as input a first set of data, said first set of segment drivers translating said first set of data into pixels output on a first of said display panels;

a second set of segment drivers coupled to said display controller and said first set of segment drivers to receive a second set of data, said second set of segment drivers translating said second set of data into pixels output on a second of said display panels; and

a power control block coupled to said CPU and to said first and second set of segment drivers to disable a first power source which powers down said second set of segment drivers, said powering down disabling said second display panel from outputting pixels, said information device functioning as one of a cellular communications device and a personal digital assistant, said second displaying panel displaying information relative to said personal digital assistant function, further wherein said first display panel displaying information relevant to said cellular communications function.

6. An apparatus according to claim 5 wherein said power control block disables a second power source which powers down said first set of segment drivers, said powering down disabling said first display panel.

7. An information device having a single display panel logically split into a first and second sub-panel, said device comprising:

a top shell including a top inner shell and top outer shell, said top outer shell on the opposing side of said top inner shell, said top inner shell containing said display panel:

a joint coupled to said top shell for folding said device; and

a bottom shell coupled to said top shell through said joint, said bottom shell including a bottom inner shell and a bottom outer shell, said bottom outer shell on the opposing side of said bottom inner shell, said bottom shell having an open area, wherein

said open area leaves visible said first sub-panel and hides said second sub-panel when said device is closed about said joint, wherein when said device is closed, a first power signal is disabled to power down said second sub-panel and a second power signal is enabled to power said first sub-panel, said information device functioning as one of a cellular communication device and a personal digital assistant, said second sub-panel displaying information relevant to said personal digital assistant function, and said first sub-panel displaying information relevant to said cellular communications function.

8. An information device according to claim 7 wherein when said device is open, said first signal is enabled to power said second sub-panel and said second power signal is enabled to power said first sub-panel.

9. An information device according to claim 7 wherein said information device is capable of performing a certain function when closed about said joint, said function monitored through said open area.

10. An information device having a two separate display panels, each display panel on separate physical planes, said device comprising:

a top shell including a top inner shell and a top outer shell, said top outer shell on the opposing side of said top inner shell, said top inner shell containing both said display panels;

a joint coupled to said top shell for folding said device; and

a bottom shell coupled to said top shell through said joint including a bottom inner shell and a bottom outer shell, said bottom outer shell on the opposing side of said bottom inner shell, said bottom shell having an open area, wherein said open area leaves visible said first display panel and hides said second display panel when said device is closed about said joint, wherein when said device is closed, a first power signal is disabled to power down said second display panel and a second power signal is enabled to power said first display panel, said information device functioning as one of a cellular communications device and a personal digital assistant, said second display panel displaying information relevant to said personal digital assistant function, and said first

display panel displaying information relevant to said cellular communications function.

11. An information device according to claim 10 wherein when said device is open, said first power signal is enabled to power said second display panel and said second power signal is enabled to power said first display panel.

12. An apparatus comprising:

a wireless communication module;

a computing module;

a display, wherein the display is adapted to display information related to the wireless communication module and the computing module; and

a display controller adapted to disable a first portion of the display and enable a second portion of the display.

13. The apparatus of claim 12, wherein the first portion of the display is adapted to display information related to the wireless communication module.

14. The apparatus of claim 13, wherein the second portion of the display is adapted to display information related to the computing module.

15. The apparatus of claim 13, wherein the first portion is adapted to display information related only to the wireless communication module.

16. The apparatus of claim 12, wherein the computing module is adapted to operate as a personal digital assistant.

17. The apparatus of claim 12, further comprising at least two segment drivers coupled to the display and the controller.

18. The apparatus of claim 12, wherein the display controller is adapted to disable the first portion of the display while the second portion of the display is enabled.

19. An apparatus comprising:

a display controller adapted to disable a first portion of a display while enabling a second portion of a display, the first portion of the display adapted to display information from a wireless communication device and the second portion of the display adapted to display information from a personal digital assistant.

20. The apparatus of claim 19, wherein the display controller is further adapted to enable the first portion of the display while disabling the second portion of the display.

21. The apparatus of claim 19, further comprising at least two segment drivers coupled to the display and the display controller.

22. The apparatus of claim 19, wherein the first portion of the display is physically contiguous with the second portion of the display.

23. The apparatus of claim 19, wherein the first portion of the display is physically separated from the second portion of the display.

24. A method comprising:

displaying information related to a wireless communication device on a first portion of a display;

disabling the first portion of the display; and

displaying information related to a personal digital assistant on a second portion of the display.

25. The method of claim 24, wherein disabling the first portion of the display occurs substantially simultaneously with displaying information on the second portion of the display.

26. The method of claim 24, further comprising displaying information related to the wireless communication device after disabling the second portion of the display.

27. The method of claim 24, further comprising displaying information related to the wireless communication device substantially simultaneously with displaying information related to the personal digital assistant on the second portion of the display.

28. An article comprising:

a storage medium having stored thereon instructions, that, when executed by a computing platform, results in:

displaying information on a first portion of a display, wherein the information is related to a wireless communication module;

displaying information on a second portion of a display, wherein the information is related to an application program running on the computing platform; and

disabling the first portion of the display while displaying information on the second portion of the display.

29. The article of claim 28, wherein the instructions, when executed, further result in disabling the second portion of the display with a display controller.

30. The article of claim 28, wherein the instructions, when executed, further result in disabling a first segment driver and disabling a second segment driver.

31. The article of claim 28, wherein the instructions, when executed, further result in disabling the second portion of the display while displaying information on the first portion of the display.

32. The article of claim 28, wherein the instructions, when executed, further result in substantially simultaneously displaying information on the first portion of the display and the second portion of the display.

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Selectric. The Enter and Shift keys, for example, are notably smaller than on the Selectric; there is an extra key (with a backslash and vertical bar) between the Z key and the left shift key; and there is another extra key (with the grave accent and the tilde) between the quote key and the Enter key. Other annoyances on the keyboard included the lack of lights to indicate the status of the Caps Lock, Scroll Lock, and Num Lock keys.

PDA Abbreviation for Personal Digital Assistant, a term describing a lightweight palmtop computer designed to provide specific functions such as personal organization (calendar, note taking, database, calculator, and so on.) as well as communications. More advanced models also offer multimedia features through a CD-ROM player. Future enhancements are expected to include voice recognition and the ability to scan in documents via the display, plus expanded communications functions including the ability to access real-time, individually tailored "newspapers."

Current PDA devices rely on a pen for input instead of a keyboard or mouse. In addition, unlike regular portable computers, a PDA is not intended to run commercially available application software. All of a PDA's software is installed into the device, and any additional software is generally installed by means of a plug-in PC Card or related device. For data storage, a PDA relies on flash memory instead of power-hungry disk drives. For communications, a PDA uses cellular or wireless technology that is often built into the system but which can be supplemented or enhanced by means of a PC Card. *See also* firmware, flash memory, PC Card, pen computer.

PDL *See* page-description language.

PDM *See* pulse duration modulation.

peek To read a byte from an absolute memory location. POKE (store a byte in memory) and PEEK commands are often found in programming languages, such as BASIC, that do not normally allow access to specific memory locations. *Peek* can also refer to the act of looking at the next character in a buffer associated with a keyboard or other sequential input device without actually removing the character from the buffer.

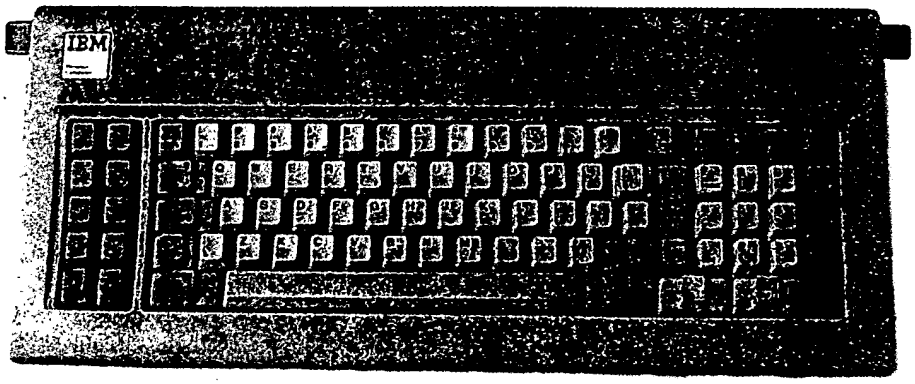
peer Any of the devices on a layered communications network that operate on the same protocol level. *See also* network architecture.

peer-to-peer communications Interaction between devices that operate on the same communications level on a network based on a layered architecture. *See also* network architecture.

pel An older acronym for picture element (pixel). *See* pixel.

pen *See* light pen, stylus.

pen computer A term describing a class of computers whose primary input device is a pen in-



PC/XT keyboard.